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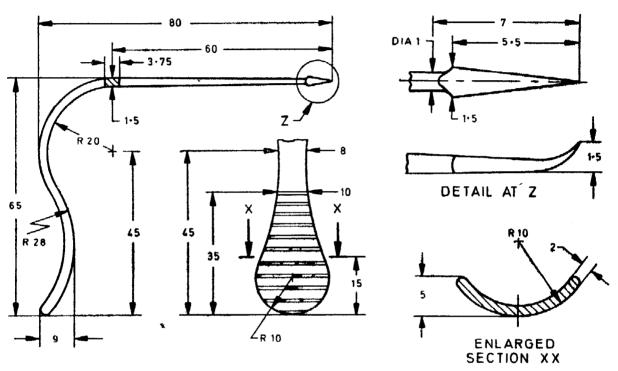




Indian Standard

SPECIFICATION FOR NEEDLE, FINE, SPEAR POINTED, CURVED RIGHT, ZOELLNER'S PATTERN

- 1. Scope Dimensional and other requirements for right curved spear pointed Zoellner's fine needle used in ENT microsurgery.
- 2. Shape and Dimensions As shown in Fig. 1.



All dimensions in millimetres.

FIG. 1 NEEDLE, FINE, SPEAR POINTED, CURVED RIGHT, ZOELLNER'S PATTERN

- 2.1 A deviation of ± 2.5 percent shall be allowed on all dimensions.
- 3. Material Stainless steel conforming to Designation 30Cr13 of IS: 6603-1972 'Specification for stainless steel bars and flats'.
- 4. Workmanship and Finish
- 4.1 The needle shall be free from burrs, scales pits and other defects.
- 4.2 The edges shall be rounded except the working end which shall be spear pointed.
- 4.3 The needle shall be matt finished and passivated.
- 4.4 Proper grooves shall be provided for good hold of the thumb.
- 4.5 The needle shall be forged in one piece to the required shape and size.
- 4.6 The needle shall be well balanced and symmetrical to the centre line.
- 5. Heat Treatment The needle shall be hardened and tempered to a hardness of 380 to 480 HV.

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IS: 9016 - 1979

6. Tests

- 6.1 Performance The working end of the needle shall be pierced through a piece of natural rubber, 3 mm thick at 6 different places. On completion of the test the needle shall show no sign of damage.
- **6.2** The needle shall satisfy the boiling and autoclaving test as mentioned in IS: 7531-1975 'Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'.
- 7. Marking The instrument shall be marked with the manufacturer's name, initials or recognized trade-mark.
- 7.1 ISI Certification Marking Details available with the Indian Standards Institution.
- 8. Packing The needle shall be thoroughly cleaned, preferably ultrasonically, and dried before packing. The needle shall be wrapped in moisture-proof paper or packed in polyethylene bag. Each needle shall then be packed in individual carton in such a way that its working end is protected from coming in contact with hard surface resulting in any damage. The needle may also be packed as agreed to between the purchaser and the supplier.